

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended): An exposure device for living cell cultures comprising a base portion, a top portion, fluid inlet means, fluid outlet means, medium inlet means, medium outlet means, a medium chamber and a plurality of cell culture chambers, wherein the medium chamber is common to all of the cell culture chambers.

Claim 2. (Currently Amended): An exposure device according to Claim 1, wherein said medium chamber has medium directing means therewithin.

Claim 3. (Original): An exposure device according to Claim 2, wherein said medium directing means is formed from a raised area of said base portion of said exposure device.

Claim 4. (Currently Amended): An exposure device according to Claim 2 [[or 3]], wherein said medium directing means is an island within said medium chamber around which a nutrient medium may flow.

Claim 5. (Currently Amended): An exposure device according to ~~any one of Claims 2—4~~ Claim 2, wherein said medium directing means is centrally located within said medium chamber.

Claim 6. (Currently Amended): An exposure device according to ~~any one of the Claims 2—5~~ Claim 2, wherein said medium directing means is located equidistant to each of said cell culture chambers.

Claim 7. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said exposure device comprises three cell culture chambers.

Claim 8. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein the base of each of said cell culture chambers is spaced apart from the base of said exposure device by ~~means of~~ a gap such that, in operation, nutrient medium flows freely under each of said cell culture chambers within said medium chamber.

Claim 9. (Original): An exposure device according to Claim 8, wherein said gap is at least 1mm.

Claim 10. (Currently Amended): An exposure device according to Claim 8 [[or 9]], wherein said

gap is about 2mm or more.

Claim 11. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said medium inlet ~~means~~ is located in said base portion of said exposure device such that, in operation, medium flows directly into said medium chamber.

Claim 12. (Currently Amended): An exposure device according to Claim 11, wherein said medium inlet ~~means~~ is located in a side wall of said base portion of said exposure device.

Claim 13. (Currently Amended): An exposure device according to Claim 11, wherein said medium inlet ~~means~~ is located in a bottom wall of said base portion of said exposure device.

Claim 14. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said medium inlet ~~means~~ is a pipe or a tube.

Claim 15. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said medium outlet ~~means~~ is spaced apart from said medium inlet ~~means~~.

Claim 16. (Currently Amended): An exposure device according to Claim 2, wherein said medium outlet ~~means~~ is spaced apart from said medium inlet ~~means~~ by all of said cell culture chambers and/or said medium directing means.

Claim 17. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said medium outlet ~~means~~ is operable to remove nutrient medium from the top surface thereof.

Claim 18. (Currently Amended): An exposure device according to Claim 17, wherein said medium outlet ~~means~~ extends from the top portion of said exposure device into said medium chamber.

Claim 19. (Currently Amended): An exposure device according to ~~any one of Claims 1—18~~ Claim 1, wherein said medium outlet ~~means~~ comprises two outlets ~~means~~.

Claim 20. (Currently Amended): An exposure device according to Claim 19, wherein one of said two outlets ~~means~~ is positioned to allow for basal feeding of said cell cultures, and the other of said outlets ~~means~~ is positioned to allow for submersion feeding of said cell cultures.

Claim 21. (Currently Amended): An exposure device according to ~~any one of the preceding~~

claims Claim 1, wherein said medium outlet means is a pipe or a tube.

Claim 22. (Currently Amended): An exposure device according to Claim 21, wherein said medium outlet means is locked into said exposure device by a locking mechanism means.

Claim 23. (Currently Amended): An exposure device according to Claim 22, wherein said locking mechanism means is a threaded screw arrangement having a central bore.

Claim 24. (Currently Amended): An exposure device according to Claim 22, wherein said locking mechanism means is a frictional lock locking means operable to adjust the position of said medium outlet tube.

Claim 25. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said medium outlet means is operably attached to a first pump means and said medium inlet means is operably attached to second pump means.

Claim 26. (Currently Amended): An exposure device according to Claim 25, wherein, in operation, said first pump means has a controllable first pump rate and said second pump means has a controllable second pump rate and said first pump rate is at least equal to said second pump rate.

Claim 27. (Original): An exposure device according to Claim 26, wherein said first pump rate is greater than said second pump rate.

Claim 28. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said exposure device further comprises a fluid exposure chamber.

Claim 29. (Original): An exposure device according to Claim 28, wherein said fluid exposure chamber is common to said cell culture chambers.

Claim 30. (Currently Amended): An exposure device according to Claim 28 [[or 29]], wherein said exposure device further comprises fluid dispersing means.

Claim 31. (Original): An exposure device according to Claim 30, wherein said fluid dispersing means is operable to provide substantially contemporaneous fluid exposure to each of said cell culture chambers.

Claim 32. (Currently Amended): An exposure device according to Claim 30 [[or 31]], wherein said fluid dispersing means is a disc-shaped plate above said cell culture chambers.

Claim 33. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said fluid inlet means is located in said top portion of said

exposure device.

Claim 34. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said fluid inlet ~~means~~ is operably connected with fluid generating means whereby fluid is delivered to said exposure device through said fluid inlet ~~means~~.

Claim 35. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said exposure device further comprises a cell culture chamber support.

Claim 36. (Currently Amended): An exposure device according to ~~any one of the preceding claims~~ Claim 1, wherein said exposure device is formed from a material selected from the group comprising PTFE, Stainless Steel, Perspex™ and Glass.

Claim 37. (Original): A method of supplying nutrient medium to cell culture chambers whereby nutrient supply means, medium directing means and cell culture chambers are mutually arranged to provide substantially contemporaneous nutrient medium replenishment at each of said cell culture chambers.

Claim 38. (Original): An exposure device for living cell cultures having a medium chamber common to a plurality of cell culture chambers and medium directing means, said cell culture chambers and medium directing means being mutually arranged so as to provide substantially contemporaneous medium exchange at said cell culture chambers.

Claim 39. (Canceled).

Claim 40. (New): An exposure device for living cell cultures, comprising:
a base portion, a top portion, a fluid inlet, a fluid outlet, a medium inlet, a medium outlet, a medium chamber and a plurality of cell culture chambers, wherein the medium chamber is common to all of the cell culture chambers, said medium chamber has a raised area of said base portion of said exposure device.

Claim 42. (New): The exposure device according to Claim 40, wherein said raised area of said base portion is located equidistant to each of said cell culture chambers.

Claim 43. (New): An exposure device for living cell cultures, comprising:
a base portion, a top portion, a fluid inlet, a fluid outlet, a medium inlet, a medium outlet, a

AN EXPOSURE DEVICE
Inventors: Massey et al.
Atty.Dkt: RD 440

medium chamber and a plurality of cell culture chambers, wherein the medium chamber is common to all of the cell culture chambers, said medium chamber has a raised area of said base portion of said exposure device, said medium outlet locked into said exposure device by a locking mechanism.